

Amendments to the Specification:

Please replace the original title with the following title:

Connector Assembly Suitable for Connecting a Plurality of Signals to a Data Processing System

Please replace the paragraphs beginning on line 5, page 3 with the following amended paragraphs:

FIG 1 is a plan view of a probe receptacle portion of a connection assembly according to one embodiment of the present invention;

FIG 2 is a cross sectional view of the probe receptacle of FIG 1 taken along section [A-A]
2-2;

FIG 3 is a cross sectional view of the probe receptacle of FIG 1 taken along section [B-B]
3-3;

FIG 4 is a plan view of an iris mechanism suitable for use in the probe receptacle of FIG 1 with the iris in the closed position;

FIG 5 is a plan view of an iris mechanism suitable for use in the probe receptacle of FIG 1 with the iris in the open position;

FIG 6 is a plan view of a probe assembly portion of a connection assembly according to one embodiment of the invention;

FIG 7 is a front view of a base plate of the probe assembly of FIG 6;

FIG 8 is a cross sectional view of a probe cover of the probe assembly of FIG 6;

FIG 9 is a plan view of a probe body portion of the probe assembly of FIG 6; [and]

FIG 10 is a cross sectional view of the probe body of [FIG 9] FIG 9; and

FIG 11 is a diagram of selected elements of a data processing system enabled for use with the assembly depicted in FIGs 1-10.

Please replace paragraph beginning on line 28, page 3, with the following amended paragraph:

Generally speaking, the present invention contemplates an assembly that enables the interconnection of a large number of signals within a small "footprint." The assembly is suitable for use with a data processing system 200 (as shown in FIG 11) that includes at least one processor 202, memory 210, input means, and an adapter card 123 all connected through one or more busses such as system bus 204 and peripheral bus 220. The assembly typically includes a receptacle 102 (described further below) that is configured to attach to [the] adapter card 123 such as a PCI adapter card such that a longitudinal axis of the receptacle housing is perpendicular to [the] adapter card 123. The receptacle includes a set of contact structures that extend along the housing longitudinal axis perpendicularly to the adapter card (i.e., along a z-axis) when [the] receptacle 102 is attached to [the] adapter card 123. [The receptacle] Receptacle 102 is configured to receive a probe that is typically incorporated into a cable that would connect to

[the] adapter card 123. The contact areas of the probe are also oriented perpendicularly to the adapter to minimize the footprint of the receptacle/probe assembly on [the] adapter card 123. By orienting the contacts along an axis perpendicular to the adapter card, the area of the adapter card required for the connector is substantially independent of the number of connections required. Moreover, by incorporating an appropriate locking mechanism, the assembly facilitates the secure connection of a large number of signals.

Please replace paragraph beginning on line 5, page 4, with the following amended paragraph:

Referring also now to FIG 3, a cross sectional view of receptacle 102 taken along cross section B-B of FIG 1 is illustrated. As depicted in FIG 3, housing 104 defines an annular ring that includes an interior surface 107. A pair of opposing probe guides 118 are located on interior surface 107. Probe guides ~~[107]~~ 118 are configured to engage a guide slot in an outer surface of the probe cover to facilitate the proper orientation of the probe when it is inserted into receptacle 102. As depicted in FIG 3, receptacle 102 includes a pair of contact blocks 106 to accommodate a greater number of connections. Other embodiments of the invention may employ a greater or fewer number of contact blocks. A set of contact structures 120 are embedded in each contact block 106. Each contact structure 120 extends into the shaft space 119 defined by housing 104 and is connected to a corresponding wire 108. The set of contact structures 120 are configured in one or more rows that are oriented along a longitudinal axis of housing 104. Contacts 120 may be spring loaded or otherwise enabled to retract from shaft space 119.

Please replace paragraph beginning on line 26, page 4, with the following amended paragraph:

Referring also to FIG 2, a cross-sectional view of receptacle 102 taken along cross section [A-A] 2-2 of FIG 1 is illustrated. As depicted in FIG 2, first face 105 of housing 104 includes a pair of guide pins 110 and a guide hole 112. Guide pins 110 are positioned and dimensioned to engage corresponding holes in a base plate of the probe while hole 112 is positioned and dimensioned to receive a shaft of the probe body when the probe is inserted in receptacle 102. First face 105 of housing 104 is further depicted as including a pair of notched elements 114. Notched elements 114 each define a face 116 that engages an opposing face in a notched element of the probe cover plate to provide a stopping mechanism that limits the amount of rotation of the probe cover within the receptacle.

Please replace paragraph beginning on line 4, page 5, with the following amended paragraph:

Referring also now to FIG 3, a cross sectional view of receptacle 102 taken along cross section ~~[B-B]~~ 3-3 of FIG 1 is illustrated. As depicted in FIG 3, housing 104 defines an annular ring that includes an interior surface 107. A pair of opposing probe guides 118 are located on interior surface 107. Probe guides 107 are configured to engage a guide slot in an outer surface of the probe cover to facilitate the proper orientation of the probe when it is inserted into receptacle 102. As depicted in FIG 3, receptacle 102 includes a pair of contact blocks 106 to accommodate a greater number of connections. Other embodiments of the invention may employ a greater or fewer number of contact blocks. A set of contact structures 120 are

embedded in each contact block 106. Each contact structure 120 extends into the shaft space 119 defined by housing 104 and is connected to a corresponding wire 108. The set of contact structures 120 are configured in one or more rows that are oriented along a longitudinal axis of housing 104. Contacts 120 may be spring loaded or otherwise enabled to retract from shaft space 119.

Please replace paragraph beginning on line 16, page 5, with the following amended paragraph:

When receptacle 102 is secured to an adapter card [bracket] 123 with a locking nut 124 or other suitable fastening device, a longitudinal axis (an axis perpendicular to first face 105) of housing 104 is perpendicular to the plane defined by adapter card [bracket] 123 (i.e., the plane in which adapter card 123 lies). In this manner, the footprint of receptacle 102 on adapter card [bracket] 123 is defined by the cross sectional area of housing 104 and is substantially independent of the number of contacts structures 120. Additional contact structures 120 are accommodated by increasing the number of contact blocks 106, extending the length of housing 104, decreasing the minimum separation between adjacent contacts, or a combination of both.